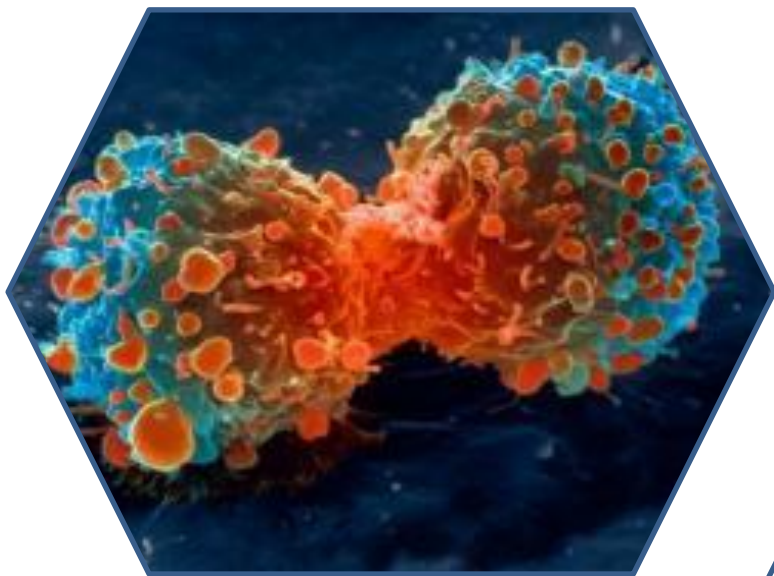


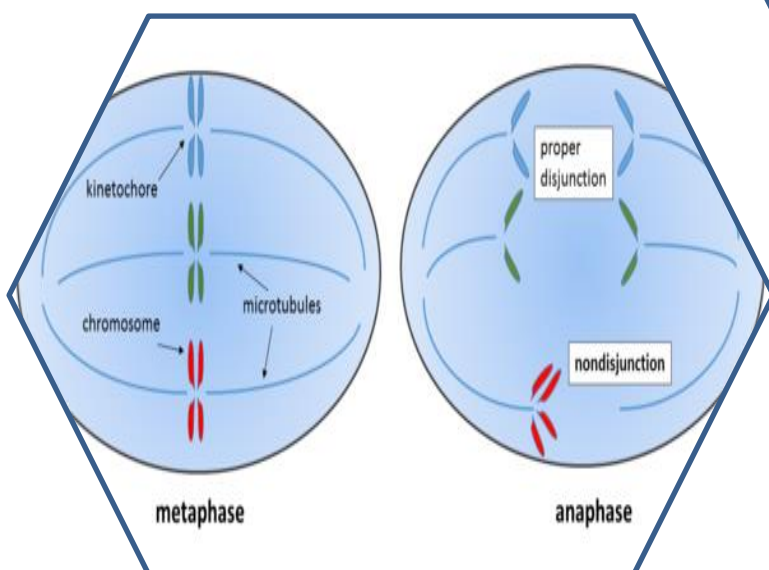
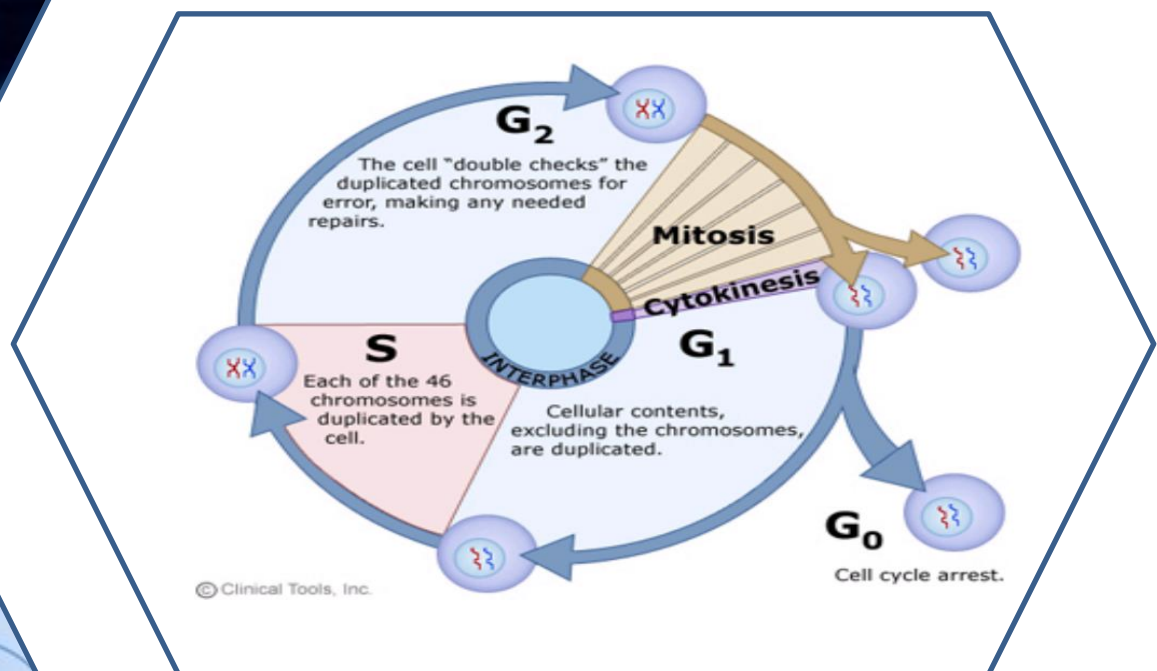


CHAPTER 8

Fungi



- Exercise Short Answers
- Important Short Answers



- Exercise MCQ's
- Important Additional MCQ's
- Past MDCAT MCQ's

Exercise Short Answers

Q:1 What are Hyphae? What is the advantage of having incomplete septa?

Ans. Hyphae:

Mycelium consists of long slender, branched, tubular, thread like filaments called hyphae.

- Hyphae spread extensively over the surface of substratum.
- Their cell walls are composed of chitin, so their wall is highly resistant to decay.
- Hyphae may be septate or non-septate.

Advantage of having incomplete Septa:

Cytoplasm flow from cell to cell, carrying the materials to growing tips and enabling the hyphae to grow rapidly when food and water are abundant and temperature is favorable.

Q:2 What is the composition of fungal cell wall and how it is this composition advantageous to fungi?

Ans: Composition of fungal cell wall:

Fungal cell walls are composed of chitin. It is advantageous because it is more resistant to decay than cellulose and lignin which make up plant cell wall.

Q:3 To which phyla do the yeasts belong? How they differ from other fungi?

Ans: Yeasts are unicellular microscopic fungi, derived from all the three different groups of fungi but mostly Ascomycetes, and reproducing mostly asexually by budding. However, yeasts reproduce sexually by forming asci / ascospores or basidia / basidiospores. They ferment carbohydrate to ethanol and carbon dioxide. They are non-hyphal.

Q:4 Name sexual and asexual spores of ascomycetes.

Ans: Sexual spores of Ascomycetes are Ascospores and asexual spores of Ascomycetes are called conidia.

Q:5 What are mycorrhizae?

Ans: Mycorrhizae:

Mycorrhizae are mutualistic association between certain fungi and roots of vascular plants.

- The fungal hyphae dramatically increase the amount of soil contact and the total surface area for absorption and help in the direct absorption of phosphorus, zinc, copper and other nutrients from the soil into the roots. Such plants show better growth than those without this association. The plant, on the other hand, supplies organic carbon to fungal hyphae.

Q:6 By what means can individuals in imperfect fungi be classified?

Ans: Individuals in imperfect fungi can be classified on the basis of DNA sequence, though sexual structures may not be found.

Q:7 Give a single characteristic that differentiates Zygomycota from Basidiomycota.

Ans: In Zygomycota, non-septate, multinucleate hyphae are present while in Basidiomycota, septate dikaryotic hyphae are found.

Q:8 Why is green mold more likely to contaminate an orange kept in refrigerator than the bacteria?

Ans: Fungi can tolerate temperature extremes 5-6 C below freezing and hence are more likely to contaminate an orange kept in a refrigerator than the bacteria.

Q:9 What is a Fungus?

Ans: Fungus:

A fungus is eukaryotic heterotrophic, spore bearing usually filamentous plant like organisms without chlorophyll having also absorptive mode of nutrition. Yeasts are unicellular fungi.

Q:10 State two paralleled characteristic of ascomycete and Basidiomycetes.

Ans: Paralleled characteristic of ascomycete and Basidiomycetes:

- Septate hyphae
- Both produce haploid sexual spores
- Lengthy dikaryotic phase

Important Short Answers

Q:1 Write two similarities and dissimilarities of plants with fungi?

Ans: Fungi resemble plants in some respects i.e.

- 1) They have cell wall.
- 2) They lack centrioles and are non-motile.

Fungi differ from plants as:

- 1) Fungi are heterotrophs.
- 2) They lack cellulose in their cell walls and contain chitin.

Q:2 How fungi gets its nutrients?

Ans: Nutrition in Fungi:

- 1) Most fungi are decomposers i.e., obtain food from dead organisms. e.g., Yeast, Agaricus.
- 2) Some fungi are parasites i.e., obtain food from living host. e.g., rust and smut.
- 3) Some are predators e.g. Arthrotrys.

Q:3 Differentiate between the members of Spore and Conidia.

Spore	Conidia
These are small, haploid and non-motile structures covered by hard wall.	Conidia are naked, non-motile, asexual spores which are cut off at the end of modified hyphae called conidiophores.
Spores are produced inside the reproductive structures called sporangia	Conidia are not produced inside the sporangium.
The hyphae on which sporangium of spores is produced is called sporangium.	The hyphae on which conidia are cut off is called conidiophores.
These are produced in Zygomycota.	These are produced in Aschomycota, Zygomycota and Deuteromycota.

Q:4 Differentiate between Lichen and Mycorrhizae.

Lichen	Mycorrhizae
Lichen is a mutualistic association between fungi and certain photoautotrophs like algae or blue, green algae.	Mycorrhizae are mutualistic association between certain fungi and roots of vascular plants.
In lichens, algae prepare food and fungi absorb water and other nutrients.	Plants prepare food. Fungi help in plants in absorption of water and minerals.
Lichens grow at harsh places like bare rock. Algae or fungi cannot grow alone in such places.	Such plants show better growth than the plants without this association.
It is found above the soil.	It is found below the soil.

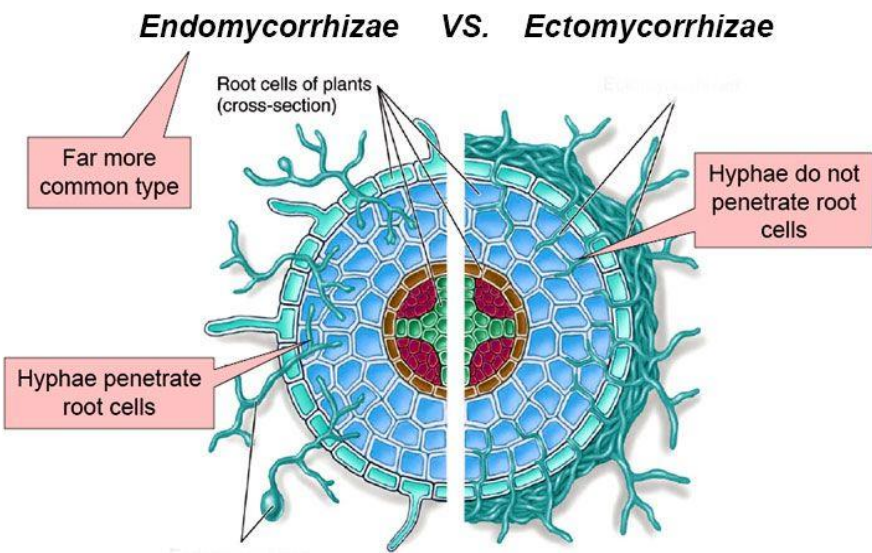
Q:5 Differentiate between Rust and Smut.

Rust	Smut
They release brick or rust red spores (that's why they are named so).	They produce black dusty mass of spores (that's why they are named so).

It attacks the plants surface like stem and leaves.	It attacks the flower and kernel of seed of wheat.
Puccinia species is most common rust fungi.	Ustilago species are most common smut fungi.

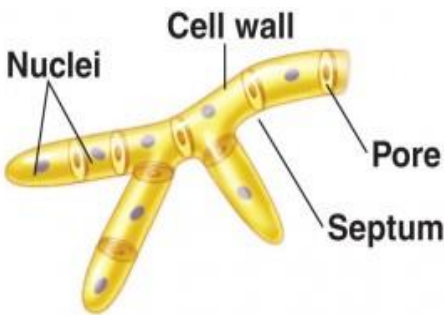
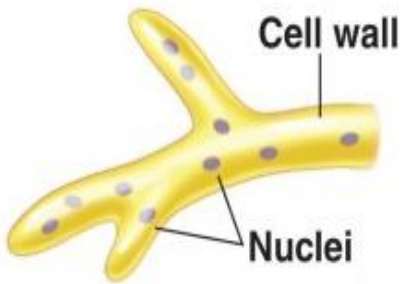
Q:6 Differentiate between the members of Endomycorrhizae / Ectomycorrhizae.

Endomycorrhizae	Ectomycorrhizae
Fungal hyphae penetrate the outer cells of the plant root.	The fungal hyphae do not penetrate the cell walls of the roots.
The fungal hyphae forming coils, swellings and minute branches.	The fungal hyphae simply grow around and extend between the cells.
These are mostly formed with angiosperms etc.	These are mostly formed with pines, firs etc.



Q:7 Differentiate between Coenocytes/ Non-septate Hyphae and Septate Hyphae.

Coenocytes/ Non-septate Hyphae	Septate Hyphae
Coenocytic hyphae lack septa or cross walls.	Hyphae are divided by cross walls called septa.
Hyphae are in the form of an elongated multinucleated large cell.	Hyphae are separated into individual cells containing one or more nuclei.
In such hyphae cytoplasm moves effectively, distributing the materials throughout.	In such hyphae, septa have pores but cytoplasm does not move so effectively.



Q:8 Differentiate between the members of Plasmogamy and Karyogamy.

Plasmogamy	Karyogamy
The fusion of cytoplasm is called plasmogamy.	The fusion of nuclei is called karyogamy.
It occurs first in sexual reproduction of fungi.	It occurs after plasmogamy in sexual reproduction of fungi.
Plasmogamy is the first step of syngamy in fungi.	Karyogamy is the second step in syngamy of fungi.
Karyogamy is the second step in syngamy of fungi.	Karyogamy produces a cell containing a diploid nucleus.
Plasmogamy generates a cell containing two haploid nuclei.	Karyogamy generates a cell containing a single diploid nucleus.
Plasmogamy is followed by karyogamy.	Karyogamy is followed by meiosis.

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Q:9 Differentiate between the members of Obligate parasite and Facultative parasite.

Obligate parasite	Facultative parasite
Obligate parasites can grow only on their living host and cannot be grown on available defined growth culture medium	Facultative parasite can grow parasitically on their host as well as by themselves on artificial growth media
Example: Various mildews and most rust species.	Example: Aspergillus species.

Q:10 Enlist four plant and four animal diseases caused by fungi.

Plant diseases	Animal diseases
- Rusts - Smuts - Powdery mildews - Potato wilt - Apple scab - Brown rot of peaches, plums, apricots and cherries	- Ringworm - Aspergillosis - Histoplasmosis - Oral and vaginal thrush - Candidosis - Ergotism

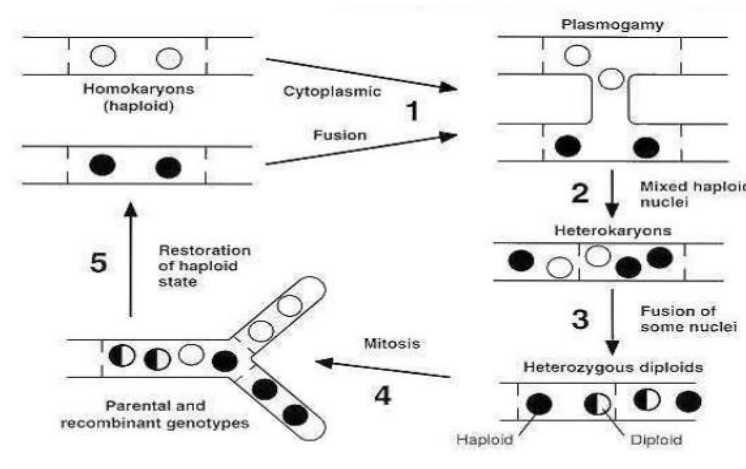
Q:11 Name and write functions of any four antibiotics obtained from fungi.

1	Penicillin	It is used against sore throat and other fevers.
2	Lovastatin	It is used for lowering blood cholesterol.
3	Cyclosporine	It is obtained from a soil fungus is used in organ transplantation for preventing transplant reaction.
4	Ergotine	It is used to relieve one kind of headache migraine.
5	Griseofulvin	It is used to inhibit fungal growth.

Q:12 What is paraexuality?

Ans: Parasexuality: The exchange of portion of chromosomes of two nuclei lying in the same hypha is called parasexuality.

- Despite absence of sexual reproduction imperfect fungi (deutromycetes) show parasexuality.



Q:13 What are Lichens? Give their importance.

Ans: Lichens: Lichen is a mutualistic association between fungi and certain photoautotrophs like algae or blue, green algae.

- Fungus protects the algae partner from strong light and desiccation and itself gets food through the courtesy of algae.
- They are ecologically very important as bio indicators of air pollution.
- These growing on,, rocks break them, setting stage for other organisms during the course of ecological succession.
- Some fungi are also used for bioremediation (degrading removing environmental poisons/ pollutants by organisms).

Q:14 Define nuclear mitosis in fungi.

Ans: Nuclear Mitosis in Fungi: During nuclear mitosis nuclear envelope does not break instead the mitotic spindle forms within the nucleus and the nuclear membrane constricts between the two clusters of daughter chromosomes. In some fungi nuclear envelope dismantles late.

Q:15 What is histoplasmosis and what is its cause?

Ans: Histoplasmosis: It is a serious infection of lungs.

- It is caused by inhaling spores of a fungus which is common in soil contaminated with bird's feces.
- If infection spreads into blood stream and then to other organs (which is very occasional), it can be serious and even fatal.

Q:16 Name methods of Asexual Reproduction in Fungi.

Ans: Methods of Asexual Reproduction:

- 1) Spores
- 2) Conidia
- 3) Fragmentation
- 4) Budding

Q:17 Name most commonly exploited yeast and explain the common method of sexual reproduction in yeast.

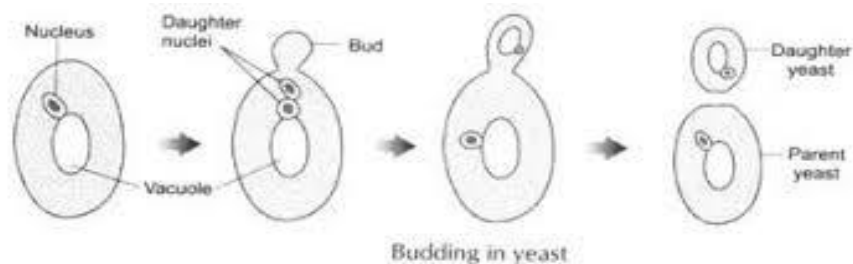
Ans: *Saccharomyces cerevisiae* is the most commonly exploited yeast.

- Yeast (*Saccharomyces cerevisiae*) is used in the production of bread and liquor (Fermenting ability).
- Yeast reproduces by budding and conidia formation.

Q: 18 What is budding in Fungi?

Ans. Budding: Budding is an asexual process of reproduction in which an outgrowth or bud is produced which may separate and grow by simple relatively equal cell division.

- Yeast multiply by budding. In yeast a cell becomes swollen at one edge, and a new smaller cell called a bud develops from the parent cell and breaks free to live independently.



Q:19 What is Carnivorous fungus? Give example.

Ans: Carnivorous Fungus:

The fungus which obtains its food by digesting and then absorbing the contents of worms to fulfil their nitrogen requirements is called carnivorous fungus.

Examples:

a) *Pleurotus ostreatus* (Oyster Mushroom):

It paralyzes the nematodes (that feed on this fungus) penetrate them, and absorb their nutritional contents, primarily to fulfil its nitrogen requirements. It fulfils its glucose requirements by breaking the wood.

b) *Arthrobotrys spp.*: some species of *Arthrobotrys spp.* Trap soil nematodes by forming constricting rings. Their hyphae invade and digest the nematodes.

c) Other Predator Fungi: Other predator fungi have other adaptations such as secretion of sticky substances.

Q:20 What are Aflatoxins?

Ans: Aflatoxins: Aflatoxins are potent mycotoxins (poisonous compound by fungi) produced by *Aspergillus flavus*, a deuteromycete.

- Agriculture products on which aflatoxin-producing fungi commonly grow include peanuts, grains, cereals, sweet potatoes, corn, rice and animal feed.
- Other foods that may contain traces of aflatoxins include animal products such as milk, eggs, and meat (from animals that consumed feed contaminated by aflatoxin).
- Aflatoxins deposited in foods and ingested by humans are thought to be carcinogenic, especially in the liver.
- Any human or animal forage product that has become moldy should be suspected of aflatoxin contamination and discarded.

Q:21 What are saprotrophs?

Ans: Saprotrophs: Organisms that obtain energy by the decomposition of dead organic material are called Saprotrophs.

- These are heterotrophic organisms that secrete digestive enzymes into their surroundings, break down dead organic material externally and then absorb back the organic molecules produced by this external digestion into their body. They use decomposition products as a source of energy.

Q:22 Give the causes and symptoms of Ergotism.

Ans: Causes of Ergotism:

Ergotism is caused by a powerful mycotoxin produced by *Claviceps purpurea*, an ascomycete. The fungus infects the flower of rye plants and other cereals. The fungus replaces the seed with its own sclerite or resting bodies known as ergots which contain alkaloids. When livestock eat this grain or when human eat bread made from ergot contaminated rye flour,, they may be poisoned by extremely toxic substances in the ergot.

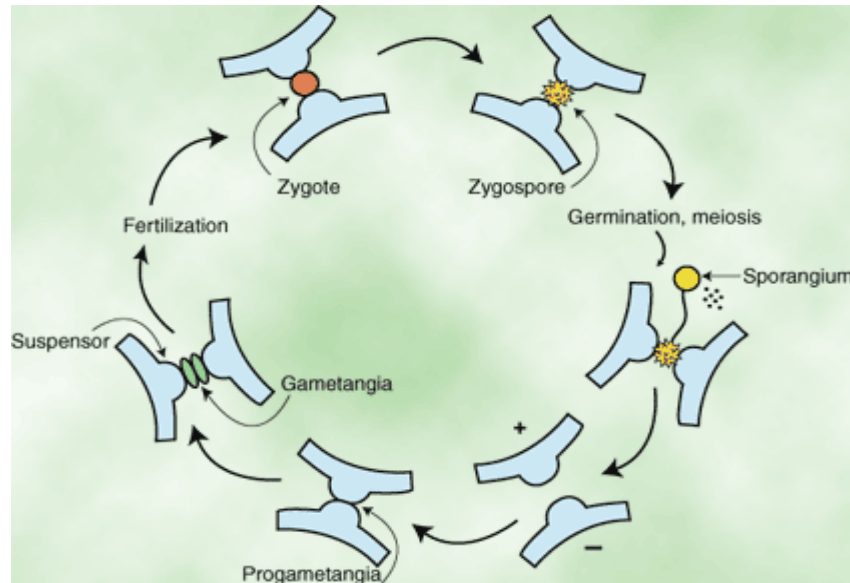
Symptoms of Ergotism:

Symptoms include nervous spasm, convulsion, psychotic delusion and even gangrene.

Q:23 How sexual reproduction occurs in zygomycota?

Ans: Sexual reproduction in Zygomycota:

- Zygote is formed directly by the fusion of hyphae.
- Zygote forms temporary, dormant, thick walled structure called zygosporangium.
- Meiosis takes place when zygosporangium germinates and haploid spores are produced.
- Spores on germination produce new mycelium.



Q:24 write economic importance of Fungi.

Ans: Fungi cause economic gains or losses.

Economic gains:

- Some fungi are used in food industry such as Yeasts, *Penicillium aspergillus* etc.
- Some fungi are source antibiotics and other drugs.
- Some fungi are used in genetic and molecular biological research.

Economic losses:

- Fungi are responsible for many serious plant diseases, including powdery mildews, ergot of rye, red rot of sugar cane etc.
- Fungi also cause certain animal diseases such as Ringworm, athlete's foot, histoplasmosis, aspergillosis etc.
- They also do incalculable damage to food, wood, fiber and leather by decomposing them.

Exercise MCQ's

❖ Encircle the correct answer from the multiple choices.

- 1) Which statement about fungal nutrition is not true.....:
- a) Some fungi are active predators
 - b) Some fungi are mutualists
 - c) Facultative parasitic fungi can grow only on their specific host
 - d) All fungi require mineral nutrients
- 2) The absorptive nutrition of fungi is aided by:
- a) Spore Formation
 - b) Their larger surface area volume ratio
 - c) They are all parasites
 - d) They form fruiting bodies
- 3) The zygomycetes:
- a) Have hyphae without regularly occurring cross walls
 - b) Produce motile gametes
 - c) Are haploid throughout their life
 - d) A and B both are correct
- 4) Which of the following cells/structures are associated with sexual reproduction in fungi?
- a) Ascospores
 - b) Conidia
 - c) Zygosporangia
 - d) Basidiospores
- 5) The closest relatives of fungi are probably:
- a) Animals
 - b) Slime molds
 - c) Brown algae
 - d) Vascular plants
- 6) E.coli of fungi is the:
- a) Rusts
 - b) Brown molds
 - c) Green mold
 - d) Yeast
- 7) An ascus is to ascomycetes as is a to basidiomycetes.
- a) Basidiospores
 - b) Basidiocarp
 - c) Basidium
 - d) Haustorium
- 8) Which statement is not true about Deuteromycetes?
- a) They are also called imperfect fungi
 - b) Their sexual spores are called conidia
 - c) It is a heterogeneous polyphyletic group
 - d) They have both sexual and asexual reproduction

Answer:

1	c	2	b	3	a	4	b	5	b
6	d	7	c	8	d				

Most important MCQ's

❖ Encircle the correct answer from the multiple choices.

Fungi, body structure and taxonomic position

- 1) The closest relatives of fungi are probably:
a) Vascular plants b) Slime molds c) Brown algae d) Animals
- 2) Which one of the following is a major structural component of fungus cell wall:
a) Cellulose b) Peptidoglycan c) Chitin d) Lignin
- 3) Fungi are heterotrophs lack cellulose in their cell wall & contain a chemical found in skeleton of arthropods:
a) Cutin b) Lignin c) Pectin d) Chitin
- 4) The skeleton of Arthropoda is made of:
a) Cellulose b) Chitin c) Polysaccharide d) Lignin
- 5) Which is absent in fungi?
a) Chlorophyll b) Hyphae c) Glycogen d) Chitin
- 6) Fungi show a characteristic type of Mitosis called nuclear mitosis. Which one is related to this process?
a) Nuclear envelop does not break
b) Mitosis apparatus is formed within nucleus
c) Nuclear membrane constricts between the two clusters of daughter chromosomes
d) All of these
- 7) A single mycelium may produce up to a kilometer of new hyphae in only:
a) One day b) Five days c) Fifteen days d) Twenty days
- 8) How many species of fungi are known till now:
a) 10000 b) 100000 c) 10000000 d) 1000
- 9) Which of the following group represent pathological fungi?
a) Mushrooms morels and truffles b) Rusts smuts and molds c) Penicillium d) All of these
- 10) Which one of the following is different from all the rest regarding the number of cells in its body?
a) Rusts b) Mushrooms c) Molds d) Yeasts
- 11) Root like structure in saprotrophic fungi are called:
a) Rhizoids b) Haustoria c) Hyphae d) Constricting rings
- 12) According to two kingdom classification fungi were placed in kingdom:
a) Plantae b) Animalia c) Protista d) Fungi
- 13) Coenocytic hyphae are also known as:
a) Septate b) Perforated hyphae c) Aseptate d) Uninucleate hyphae
- 14) Unicellular fungi which is non-hyphal is:
a) Mushroom b) Yeast c) Penicillium d) Mold

Nutrition of Fungi

- 15) The fungi which obtain their food from organic matter are called:
a) Saprotrophs b) Autotrophs c) Heterotrophs d) Parasites
- 16) Parasitic fungi directly absorb nutrients from living host cytoplasm by:
a) Haustoria b) Roots c) Rhizoids d) Gametangia
- 17) Example of soil dwelling carnivorous fungus is:
a) Arthrobotrys b) Armillaria c) Pleurotus d) Penicillium
- 18) Arthrobotrys is a/an.....:
a) Carnivorous fungus b) Decomposer c) Symbionts d) Active predator
- 19) The predatory Oyster mushroom paralyses the following organism:
a) Algae b) Bacteria c) Nematode d) Snails
- 20) Mutualistic association between certain fungi and roots of vascular plants is:
a) Lichen b) Mycorrhizae c) Arthrobotrys d) None
- 21) The role of Fungi in Mycorrhizae association to.....:
a) Produce necessary nutrients
b) Increase the absorptive surface of plant roots
c) Provide a substitutes of plant leaves
d) Increase the absorption of plant shoots
- 22) Most of the visible part of the lichen consists of:
a) Fungi b) Algae c) Roots d) Bacteria
- 23) These are ecologically important as bio-indicators of air pollution:
a) Lichen b) Mycorrhizae c) Yeasts d) Viruses
- 24) Reindeer moss is a:
a) Moss b) Mycorrhizae c) Algae d) Lichen

53) Sexual reproduction is absent in:

- | | | | |
|------------------|------------------|---------------|---------------|
| a) Deuteromycota | b) Basidiomycota | c) Ascomycota | d) Zygomycota |
|------------------|------------------|---------------|---------------|

54) In which phylum has the sexual phase not been observed:

- | | | | |
|---------------|------------------|------------------|---------------|
| a) Ascomycota | b) Deuteromycota | c) Basidiomycota | d) Zygomycota |
|---------------|------------------|------------------|---------------|

55) In general asexual reproduction is common in:

- | | | | |
|----------|------------------|------------------|------------------|
| a) Human | b) Deuteromycota | c) Basidiomycota | d) Basidiospores |
|----------|------------------|------------------|------------------|

56) Branched and septate mycelium of penicillium containing spores at the tips, What is the name given to these spores:

- | | | | |
|---------|------------|------------|------------------|
| a) Asci | b) Conidia | c) Basidia | d) Zygosporangia |
|---------|------------|------------|------------------|

57) Alternaria is an example of:

- | | | | |
|---------------|---------------|------------------|------------------|
| a) Zygomycota | b) Ascomycota | c) Basidiomycota | d) Deuteromycota |
|---------------|---------------|------------------|------------------|

58) Brush like arrangement of conidia is found in:

- | | | | |
|--------------|-------------|----------------|----------|
| a) Mushrooms | b) Ustilago | c) Penicillium | d) Yeast |
|--------------|-------------|----------------|----------|

Land adaptation of Fungi

59) Fungi can tolerate a wide range of pH from:

- | | | | |
|--------|---------|---------|---------|
| a) 2-9 | b) 3-10 | c) 4-11 | d) 1-13 |
|--------|---------|---------|---------|

Beneficial effect of Fungi

60) Ecological role of fungi as decomposers is parallel only by:

- | | | | |
|--------------|-------------|----------|---------------|
| a) Arthropod | b) Bacteria | c) Algae | d) Bryophytes |
|--------------|-------------|----------|---------------|

61) Second to fungi as decomposers are:

- | | | | |
|------------|--------------|-------------|------------|
| a) Diatoms | b) Red algae | c) Bacteria | d) Euglena |
|------------|--------------|-------------|------------|

62) Principal decomposers of cellulose and lignin are:

- | | | | |
|-------------|------------|----------|---------------|
| a) Bacteria | b) Viruses | c) Fungi | d) Protozoans |
|-------------|------------|----------|---------------|

63) Reindeer moss is:

- | | | | |
|---------|----------|-----------|----------|
| a) Moss | b) Fungi | c) Lichen | d) Algae |
|---------|----------|-----------|----------|

64) The number of edible mushroom species are about:

- | | | | |
|--------|--------|--------|--------|
| a) 100 | b) 200 | c) 300 | d) 400 |
|--------|--------|--------|--------|

65) The deadly poisonous fungus is:

- | | | | |
|-------------|---------------|--------------|------------|
| a) Agaricus | b) Armillaria | c) Morchella | d) Amanita |
|-------------|---------------|--------------|------------|

66) Poisonous mushrooms are called:

- | | | | |
|-------------|-----------|----------------|-------------|
| a) Truffles | b) Morels | c) Toad stools | d) Agaricus |
|-------------|-----------|----------------|-------------|

67) Which one of the following fungus is non-edible:

- | | | | |
|--------------|-----------|----------------|-------------|
| a) Mushrooms | b) Morels | c) Toad stools | d) Truffles |
|--------------|-----------|----------------|-------------|

68) First discovered antibiotics is:

- | | | | |
|---------------|-----------------|---------------|-------------|
| a) Lovastatin | b) Cyclosporine | c) Penicillin | d) Ergotone |
|---------------|-----------------|---------------|-------------|

69) Lovastatin is medicine obtained from a fungus. It is used for

- a) Sino-Ventricular node
- b) Relieving Migraine
- c) Lowering blood cholesterol
- d) Inhibiting fungi growth

70) Which one of the following is used lowering blood cholesterol?

- | | | | |
|-----------------|---------------|-----------------|---------------|
| a) Griseofulvin | b) Penicillin | c) Cyclosporine | d) Lovastatin |
|-----------------|---------------|-----------------|---------------|

71) Lovastatin is fungal product which lowers the blood:

- | | | | |
|----------|---------|--------------|----------------|
| a) Sugar | b) Urea | c) Ca^{++} | d) Cholesterol |
|----------|---------|--------------|----------------|

72) Which is used to inhibit fungal growth?

- | | | | |
|---------------|-----------------|-----------------|------------|
| a) Lovastatin | b) Cyclosporine | c) Griseofulvin | d) Ergotin |
|---------------|-----------------|-----------------|------------|

73) Antibiotics obtained from soil fungus and used in organic transplantation for preventing tissue rejection is:

- | | | | |
|-----------------|---------------|-----------------|---------------|
| a) Griseofulvin | b) Penicillin | c) Cyclosporine | d) Lovastatin |
|-----------------|---------------|-----------------|---------------|

74) Chemical, citric acid is also obtained from some species of fungi called:

- | | | | |
|-------------|----------------|----------|----------------|
| a) Agaricus | b) Aspergillus | c) Yeast | d) Penicillium |
|-------------|----------------|----------|----------------|

75) Which is used to give flavor, aroma and characteristics color to the cheese?

- | | | | |
|----------------|----------------|----------|---------------|
| a) Penicillium | b) Aspergillus | c) Yeast | d) Neurospora |
|----------------|----------------|----------|---------------|

76) Which of the following types of fungi is used in the production of bread and liquor?

- | | | | |
|----------------|----------|---------------|----------------|
| a) Penicillium | b) Yeast | c) Neurospora | d) Aspergillus |
|----------------|----------|---------------|----------------|

77) Saccharomyces cerevisiae is the most exploited:

- | | | | |
|---------|---------------|---------------|----------|
| a) Rust | b) Brown mold | c) Green mold | d) Yeast |
|---------|---------------|---------------|----------|

78) The Kingdom of recyclers is known as kingdom:

- | | | | |
|----------|-------------|----------|----------------|
| a) Algae | b) Bacteria | c) Fungi | d) Embryophyta |
|----------|-------------|----------|----------------|

79) Ecological role of fungi as decomposers is only paralleled by:

- | | | | |
|------------------|---------------------|-------------|----------|
| a) Cyanobacteria | b) Blue green algae | c) Bacteria | d) Virus |
|------------------|---------------------|-------------|----------|

Harmful effects of Fungi

80) The disease caused by fungus is:

- | | | | |
|--------------|------------|----------|--------------|
| a) Ring worm | b) Tetanus | c) Polio | d) Small pox |
|--------------|------------|----------|--------------|

81) Histoplasmosis is a disease of:

- | | | | |
|---------|------------|----------|---------|
| a) Eyes | b) Stomach | c) Lungs | d) None |
|---------|------------|----------|---------|

82) Carcinogenic mycotoxins called aflatoxins are produced by:

- a) Aspergillus

b) Penicillium

c) Neurospora

d) Ustilago
- 83) Which of the following is a not symptom of Ergotsim?
- a) Convulsion

b) Psychotic delusion

c) Gangrene

d) Indigestion

Answer Key:

1	b	2	c	3	d	4	b	5	a	6	d	7	a	8	b	9	b	10	d
11	a	12	a	13	c	14	b	15	a	16	a	17	a	18	d	19	c	20	b
21	b	22	a	23	a	24	d	25	d	26	b	27	d	28	c	29	c	30	c
31	c	32	c	33	a	34	d	35	b	36	c	37	c	38	d	39	d	40	d
41	c	42	b	43	b	44	d	45	d	46	c	47	a	48	b	49	a	50	c
51	a	52	c	53	a	54	b	55	b	56	b	57	d	58	c	59	a	60	b
61	c	62	c	63	c	64	b	65	d	66	b	67	c	68	c	69	c	70	d
71	d	72	c	73	c	74	b	75	a	76	b	77	d	78	c	79	c	80	a
81	c	82	a	83	d														

MDCAT MCQ's

2008

- 1) In general, asexual reproduction is common in:
 - a) Humans
 - b) Deuteromycota
 - c) Basidiomycota
 - d) Basidiospores
- 2) Which of the following is used for lowering blood cholesterol?
 - a) Neurospora
 - b) Aspergillus
 - c) Griseofulvin
 - d) Lovastatin
- 3) Name the nutrition resulted by feeding on dead and decaying matter:
 - a) Saprophytic
 - b) Symbiotic.
 - c) Parasitic
 - d) Both b & c

2009

- 4) Name the nutrition resulted by feeding on dead and decaying matter:
 - a) Saprophytic
 - b) Symbiotic
 - c) Parasitic
 - d) Both b & c
- 5) Which of the following components is less resistant to decay?
 - a) Lignin
 - b) Chitin
 - c) Starch
 - d) Cellulose
- 6) _____ are bio indicators of air pollution:
 - a) Cyanobacteria
 - b) Mycorrhiza
 - c) Fungi
 - d) Lichens

2010

- 7) Drug obtained from fungus used for lowing blood cholesterol is:
 - a) Lovastatin
 - b) Ergotin
 - c) Cyclosporine
 - d) Griseofulvin
- 8) Fungi store surplus food in the form of:
 - a) Cellulose
 - b) Starch
 - c) Glycogen
 - d) Both b & c
- 9) The ecological role of fungi as decomposers is paralleled only by:
 - a) Prions
 - b) Bacteria
 - c) Algae
 - d) Viruses

2011

- 10) Which of the following component is found in the cell wall of fungi?
 - a) Cellulose
 - b) Proteins
 - c) Chitin
 - d) Glycerol
- 11) Bacteria and fungi are examples of:
 - a) Producers
 - b) Consumers
 - c) Decomposers
 - d) Denvers

2013

- 12) Antibiotics are produced by fungi and certain bacteria of group:
 - a) Actinomycetes
 - b) Ascomycetes
 - c) Oomycetes
 - d) Basidiomycetes
- 13) Fungi which cause thrush in humans:
 - a) Sarcomeres
 - b) Lovastatin
 - c) Candidiasis
 - d) Aspergillus

2014

- 14) Athlete's Foot is a disease caused by:
 - a) Bacteria
 - b) Fungus
 - c) Virus
 - d) Arthropod

2015

- 15) In rhizopus, zygote forms temporary, dormant, thick-walled resistant structure called:
 - a) Zygospor
 - b) Sporangia
 - c) Spore
 - d) Hydra

2017

- 16) Chitin, a chemical found in exoskeleton of arthropods is also found in cell wall of:
 - a) Bacteria
 - b) Cyanobacteria
 - c) Fungi
 - d) Algae

Answer Key:

1	b	2	d	3	a	4	a	5	b	6	d	7	a	8	c	9	b	10	c
11	c	12	a	13	c	14	b	15	a	16	c								